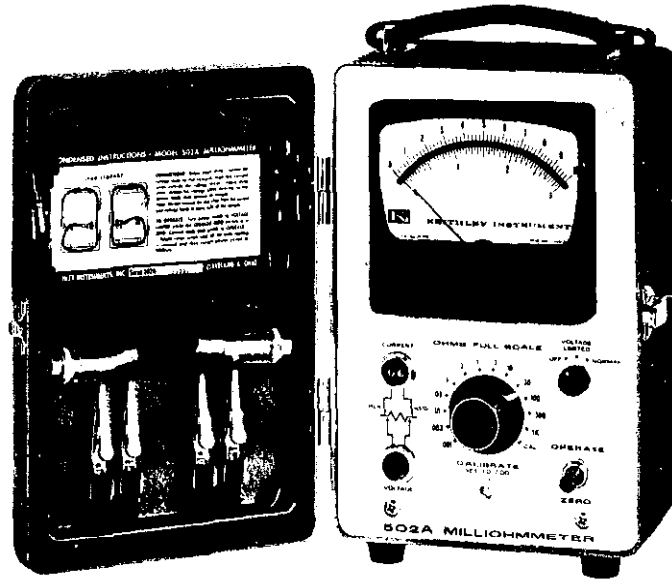


# MODEL 502A

# PORTABLE MILLIOHMMMETER



## specifications, model 502A

RANGE, ohms	Average Applied Full-Scale Current, milliamperes	Average Full-Scale Voltage Drop, microvolts	Maximum Dissipation in Sample, microwatts
0.001	10	10	0.2
0.003	10	30	0.6
0.01	10	100	2.00
0.03	3.33	100	0.66
0.1	1.00	100	0.2
0.3	0.33	100	0.066
1.0	0.1	100	0.02
3.0	0.2	600	0.24
10	0.06	600	0.072
30	0.02	600	0.024
100	0.006	600	0.0072
300	0.002	600	0.0024
1000	0.0006	600	0.00072

### NORMAL MODE:

**Accuracy:**  $\pm 3\%$  of full scale on 1000-ohm to 0.003-ohm ranges;  $\pm 5\%$  of full scale on 0.001-ohm range. Less than 2% error is added in measuring samples with a series reactance of 4% of sample resistance.

**Safety:** Maximum voltage across sample, 1.4 volts. Maximum power dissipation due to improper range setting, 3 milliwatts. Maximum power dissipation due to component failure and improper range setting, 6 milliwatts.

### VOLTAGE LIMITED MODE:

**Accuracy:** Degraded from Normal mode by 2-10%; after an on-scale reading is obtained, the unit may be safely switched to the Normal mode for a more accurate reading.

**Safety:** Maximum voltage applied across sample, 25 millivolts peak-to-peak. Maximum power dissipation due to improper range setting, 65 microwatts.

### ZERO DRIFT: None.

**WARM-UP TIME:** 30 seconds.

**INPUT ZERO:** Lever switch prevents off-scale meter indications while changing samples.

**RISE TIME (10% to 90%):** 1 second on all ranges.

**REPEATABILITY:** Within 2%.

**CONNECTORS:** Test Leads: Amphenol 80-PC2F.

**BATTERY COMPLEMENT:** Four E146 (8.4 V); two RM401R (1.34 V), two RM42R (1.34 V); 360 hours minimum life.

**ACCESSORIES SUPPLIED:** Model 5022 Current and Voltage Leads; one set alligator clips; one set Minipro adapters; mating connectors.

**DIMENSIONS, WEIGHT:** 9" high x 6" wide x 7" deep; net weight, 7½ pounds.

**PRICES:** (For export pricing see inside front cover.)

**Model 5022 Current and Voltage Leads (extra set) . . . . . \$ 25**

**Model 502A Milliohmmeter (Portable) . . . . . \$525**

### The Model 502A Milliohmmeter

Accuracy:  $\pm 3\%$  of full scale on 1000-ohm to 0.003-ohm ranges;  $\pm 5\%$  of full scale on 0.001-ohm range. Less than 2% error is added in measuring samples with a series reactance of 4% of sample resistance.

**Safety:** Maximum voltage across sample, 1.4 volts. Maximum power dissipation due to improper range setting, 3 milliwatts. Maximum power dissipation due to component failure and improper range setting, 6 milliwatts.

**Voltage Limited Mode:** Accuracy: Degraded from Normal mode by 2-10%; after an on-scale reading is obtained, the unit may be safely switched to the Normal mode for a more accurate reading.

**Safety:** Maximum voltage applied across sample, 25 millivolts peak-to-peak. Maximum power dissipation due to improper range setting, 65 microwatts.

**Zero Drift:** None.

**Warm-up Time:** 30 seconds.

**Input Zero:** Lever switch prevents off-scale meter indications while changing samples.

**Rise Time (10% to 90%):** 1 second on all ranges.

**Repeatability:** Within 2%.

**Connectors:** Test Leads: Amphenol 80-PC2F.

**Battery Complement:** Four E146 (8.4 V); two RM401R (1.34 V), two RM42R (1.34 V); 360 hours minimum life.

**Accessories Supplied:** Model 5022 Current and Voltage Leads; one set alligator clips; one set Minipro adapters; mating connectors.

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